

# Informe

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Attaching package: 'dplyr'

The following objects are masked from 'package:stats':

filter, lag

The following objects are masked from 'package:base':

intersect, setdiff, setequal, union

# 1 Informe: DW AdventureWorks2019

## 1.1 Exploración general

### 1.1.1 Análisis de ventas por trimestre

#### 1.1.1.0.1 Visualización 1

En la siguiente tabla figura, para cada año de la base, los ingresos por ventas por canal de venta

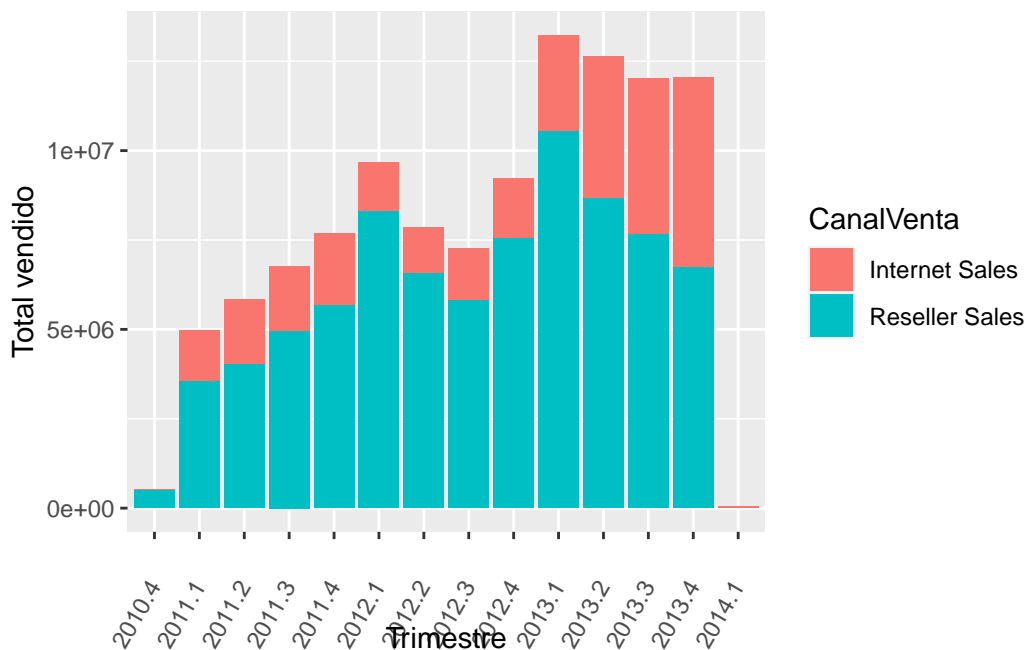
#### Ventas por trimestre

Internet y Resellers

CalendarYear	CalendarQuarter	CanalVenta	SalesAmount
2010	4	Internet Sales	43421.04
2010	4	Reseller Sales	489328.58
2011	1	Internet Sales	1421357.48
2011	1	Reseller Sales	3549026.39
2011	2	Internet Sales	1801595.14
2011	2	Reseller Sales	4027080.34
2011	3	Internet Sales	1814387.99
2011	3	Reseller Sales	4952085.98
2011	4	Internet Sales	2038185.32
2011	4	Reseller Sales	5664610.01
2012	1	Internet Sales	1375841.32
2012	1	Reseller Sales	8288704.13
2012	2	Internet Sales	1314373.65
2012	2	Reseller Sales	6556571.37
2012	3	Internet Sales	1454653.06
2012	3	Reseller Sales	5814080.11
2012	4	Internet Sales	1697617.17
2012	4	Reseller Sales	7534275.93
2013	1	Internet Sales	2678946.04
2013	1	Reseller Sales	10542661.42
2013	2	Internet Sales	3973793.48
2013	2	Reseller Sales	8656657.46
2013	3	Internet Sales	4370237.06
2013	3	Reseller Sales	7644679.64
2013	4	Internet Sales	5328573.76
2013	4	Reseller Sales	6730835.64
2014	1	Internet Sales	45694.72

### 1.1.1.0.2 Visualización 2

En la siguiente visualización se observa cómo mas allá de un estancamiento durante los 3 últimos trimestres del 2013 las ventas se han incrementado anualmente. También se debe destacar el marcado crecimiento de las ventas por internet. No parece observarse una estacionalidad por trimestre.



### 1.1.2 Las categorías más exitosas

#### 1.1.2.0.1 Visualización 3

En la tabla a continuación se observa cómo la subcategoría de bicicletas de carrera es la que posee mayor cantidad de productos vendidos.

#### Subcategorías de productos con más ventas

Internet y Resellers. Período 2010-2013

Subcategoría	CanalVenta	N_Vendidos_canal	ProductosVendidos_PorSubCategoria
Bicicleta de carretera	Reseller Sales	39080	47148
Bicicleta de carretera	Internet Sales	8068	47148
Bicicleta de montaña	Internet Sales	4970	28321
Bicicleta de montaña	Reseller Sales	23351	28321
Jersey	Reseller Sales	19379	22576

Jersey	Internet Sales	3197	22576
Casco	Reseller Sales	13101	19301
Casco	Internet Sales	6200	19301
Cubierta y cámara	Reseller Sales	674	17081
Cubierta y cámara	Internet Sales	16407	17081
Bicicleta de paseo	Reseller Sales	12584	14751
Bicicleta de paseo	Internet Sales	2167	14751
Guantes	Internet Sales	1366	12919
Guantes	Reseller Sales	11553	12919
Cuadro de carretera	Reseller Sales	11747	11747
Cuadro de montaña	Reseller Sales	11620	11620
Portabotellas y botella	Internet Sales	7756	10327
Portabotellas y botella	Reseller Sales	2571	10327
Pantalones cortos	Reseller Sales	8946	9909
Pantalones cortos	Internet Sales	963	9909
Gorra	Reseller Sales	6121	8228
Gorra	Internet Sales	2107	8228
Camiseta	Reseller Sales	6176	6708
Camiseta	Internet Sales	532	6708
Rueda	Reseller Sales	5263	5263
Calcetines	Reseller Sales	4649	5192
Calcetines	Internet Sales	543	5192
Mallas	Reseller Sales	4562	4562
Barra	Reseller Sales	3950	3950
Pedal	Reseller Sales	3931	3931
Cuadro de paseo	Reseller Sales	3725	3725
Limpiador	Reseller Sales	2411	3280
Limpiador	Internet Sales	869	3280
Portabicicletas	Reseller Sales	2838	3146
Portabicicletas	Internet Sales	308	3146
Culote corto	Reseller Sales	3111	3111
Sistema de hidratación	Reseller Sales	2028	2738
Sistema de hidratación	Internet Sales	710	2738
Sillín	Reseller Sales	2145	2145
Guardabarros	Internet Sales	2027	2027
Desviador	Reseller Sales	1166	1166
Bomba	Reseller Sales	1130	1130
Bielas	Reseller Sales	1107	1107
Candado	Reseller Sales	1086	1086
Frenos	Reseller Sales	1035	1035
Dirección	Reseller Sales	1009	1009
Eje de pedalier	Reseller Sales	921	921
Cadena	Reseller Sales	774	774

Horquilla	Reseller Sales	634	634
Soporte para bicicletas	Internet Sales	238	238

#### 1.1.2.0.2 Visualización 4

En el caso de la distribución de ventas por categoría, vemos como la categoría Bicicletas es la que aporta la mayor cantidad de productos vendidos.

#### Ventas por categoría

Internet y Resellers. Período 2010-2013

SpanishProductCategoryName	CanalVenta	N_Vendidos_canal	ProductosVendidos_PorCategoria
Bicicleta	Reseller Sales	75015	90220
Bicicleta	Internet Sales	15205	90220
Prenda	Internet Sales	8708	73205
Prenda	Reseller Sales	64497	73205
Accesorio	Internet Sales	34515	60354
Accesorio	Reseller Sales	25839	60354
Componente	Reseller Sales	49027	49027

#### 1.1.2.1 Productos más vendidos en cada categoría

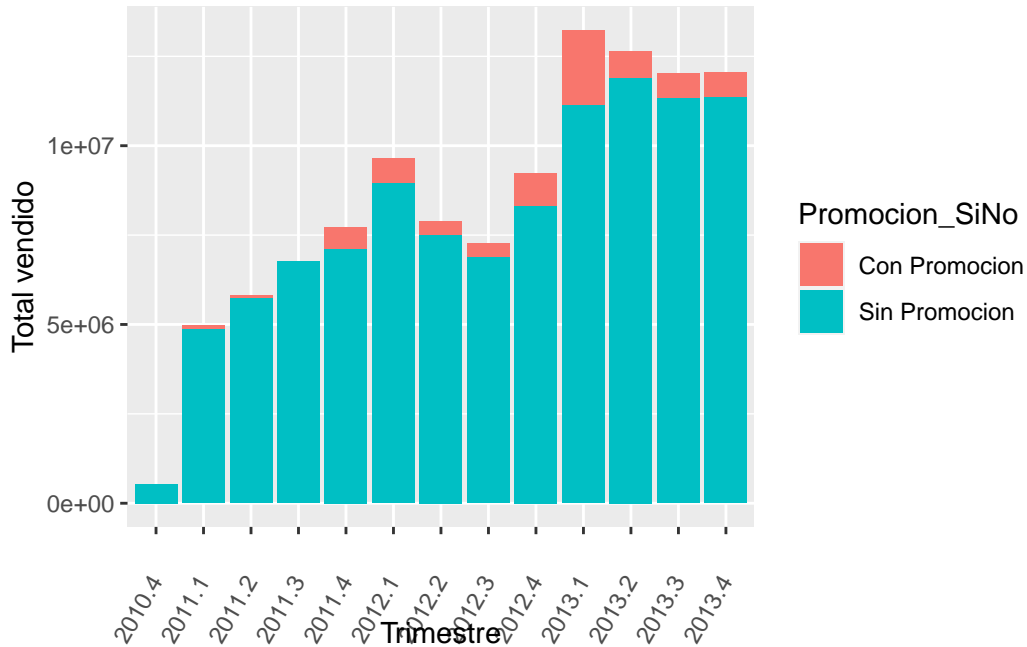
##### 1.1.2.1.1 Visualización 5 PENDIENTE

CanalVenta	SpanishProductCategoryName	ProductKey	SpanishProductName	n_prod_
Internet Sales	Accesorio	477		
Internet Sales	Accesorio	480		
Reseller Sales	Accesorio	483		
Reseller Sales	Accesorio	477		
Internet Sales	Bicicleta	361	Montaña: 200, negra, 42	
Internet Sales	Bicicleta	353	Montaña: 200, plateada, 38	
Reseller Sales	Bicicleta	343	Carretera: 650, negra, 52	
Reseller Sales	Bicicleta	327	Carretera: 650, roja, 44	
Reseller Sales	Componente	428		
Reseller Sales	Componente	511		
Internet Sales	Prenda	225		
Internet Sales	Prenda	465		

## 1.2 Análisis de promociones en ventas online

### 1.2.0.0.1 Visualización 6

Se observa cómo la venta promocional es aún una estrategia de venta muy marginal, si bien se utiliza más año a año.



### 1.2.1 Aplicación de promociones por categoría

#### 1.2.1.0.1 Visualización 7

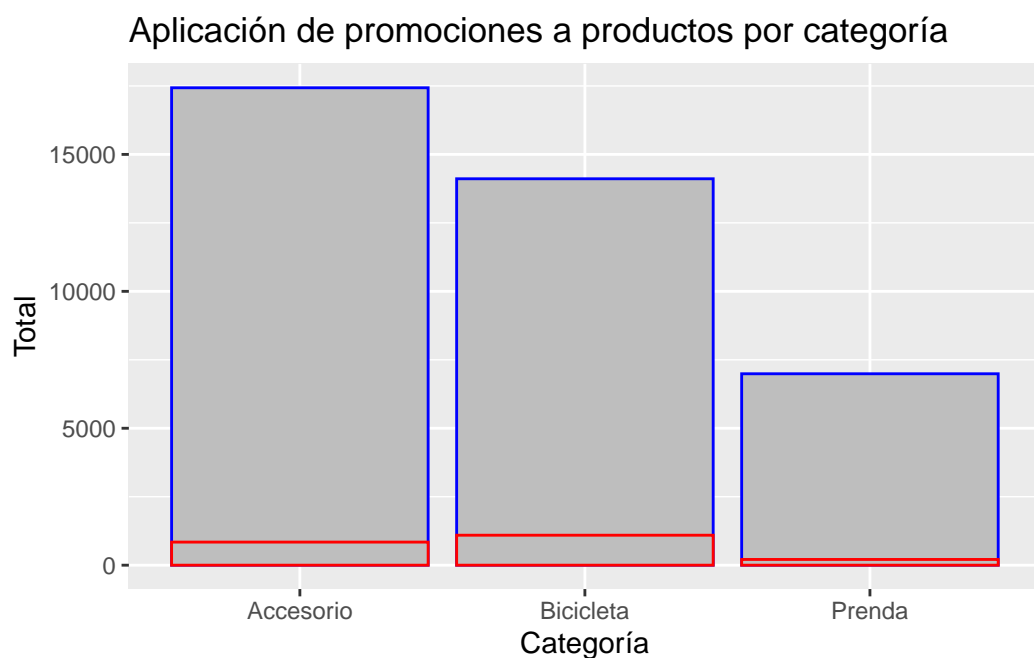
Se observa cómo la categoría bicicletas es la que cuenta con mayor venta promocional. Esto tiene sentido dato que son los productos más costosos monetariamente.

#### Porcentaje de ventas totales que se hacen c/sin promoción

Por categoría Internet Sales. Período 2010-2013

Categoría	total_categoria	prod_c_promo	prod_s_promo	porc_c_promo	porc_s_promo
Accesorio	18277	843	17434	4.61%	95.39%

Bicicleta	15205	1095	14110	7.20%	92.80%
Prenda	7199	209	6990	2.90%	97.10%



## 1.2.2 Las promociones más aplicadas

### 1.2.2.0.1 Visualización 8

#### Promociones más aplicadas

Internet Sales. Período 2010-2013

PromotionKey	total_uso_promo	SpanishPromotionName	SpanishPromotionType	SpanishPromotionName
2	2118	Descuento por volumen (entre 11 y 14)	Descuento por volumen	Distribución
13	20	Promoción 'Touring-3000'	Producto Nuevo	Distribución
14	13	Promoción 'Touring-1000'	Producto Nuevo	Distribución

## 1.3 Resellers

### 1.3.0.0.1 Visualización 9

Se observa cómo las ventas 2010-2013 se encuentran atomizadas entre los resellers del período

## Los mejores resellers del período

Recorte top5. Reseller Sales. 2010-2013

ResellerName	total_ventas
Friendly Bike Shop	15
Advanced Bike Components	12
Area Bike Accessories	12
Basic Sports Equipment	12
Better Bike Shop	12

### 1.3.1 Evolución de los mejores resellers

#### 1.3.1.0.1 Visualización 10

```
q8 %>%  
  gt() %>%  
  tab_header(title = md('**Recorrido de mejores resellers**'),  
             subtitle = 'Año a año' ) %>%  
  opt_align_table_header('left')
```

### Recorrido de mejores resellers

Año a año

ResellerName	anio	total_ventas_reseller_anio
Retail Mall	2010	1
Larger Cycle Shop	2011	4
Rapid Bikes	2011	4
Retail Mall	2011	4
Top Sports Supply	2011	1
Vigorous Exercise Company	2011	4
Larger Cycle Shop	2012	4
Rapid Bikes	2012	4
Retail Mall	2012	4
Top Sports Supply	2012	4
Vigorous Exercise Company	2012	4
Larger Cycle Shop	2013	4
Rapid Bikes	2013	4
Retail Mall	2013	3
Top Sports Supply	2013	3
Vigorous Exercise Company	2013	4





## 1.4 Vendedores y promociones

```
q9 %>%
  gt() %>%
  tab_header(title = md('**Vendedores que aplicaron la mayor cantidad de promociones**'),
             subtitle = 'En relación a sus ventas 2010-2013' ) %>%
  opt_align_table_header('left')
```

### Vendedores que aplicaron la mayor cantidad de promociones

En relación a sus ventas 2010-2013

ResellerName	total_ventas	total_ventas_promo	porc_vtas_con_promo
Fitness Department Stores	3	1	33
Accessories Network	4	1	25
Central Bicycle Specialists	4	1	25
Off-Price Bike Center	4	1	25
Two-Seater Bikes	4	1	25
Top of the Line Bikes	5	1	20
Town Industries	5	1	20
Quality Bike Sales	5	1	20
Eastside Cycle Shop	5	1	20

Active Systems	6	1	16
Expert Sports Store	6	1	16
Professional Sporting Goods	6	1	16
Racks and Security Systems	6	1	16
Family Entertainment Center	7	1	14
Eastward Bike Accessories	7	1	14
Global Sports Outlet	8	1	12
Fitness Bike Accessories	9	1	11
Rampart Amusement Company	9	1	11
Rustic Bike Store	9	1	11
Sports Store	9	1	11
Unusual Bicycle Company	10	1	10
Handy Bike Services	10	1	10
All Cycle Shop	28	3	10
Capital Riding Supplies	10	1	10
Workout Emporium	10	1	10
Big Cycle Mall	11	1	9
Acclaimed Bicycle Company	11	1	9
Cycle Clearance	11	1	9
Top Bike Market	11	1	9
Transport Bikes	11	1	9
The Bicycle Accessories Company	34	3	8
Riverside Company	34	3	8
Security Racks and Locks Wholesalers	12	1	8
Maintenance and Repair for Bicycles	12	1	8
Finer Mart	12	1	8
Latest Accessories Sales	13	1	7
Coho Sports	14	1	7
Efficient Cycling	14	1	7
Racing Partners	26	2	7
Vale Riding Supplies	13	1	7
Quick Delivery Service	15	1	6
Eighty Toy Stores	29	2	6
Capable Sales and Service	37	2	5
Global Plaza	36	2	5
General Industries	54	3	5
Riding Associates	18	1	5
Rural Department Store	24	1	4
Sensible Sports	21	1	4
Sports Commodities	22	1	4
Suburban Cycle Shop	24	1	4
Sturdy Toys	193	8	4
Systematic Sales	23	1	4

Traditional Department Stores	120	5	4
Purchase Mart	21	1	4
Remarkable Bike Store	83	4	4
Novelty Bikes	24	1	4
Official Parts Shop	87	4	4
Greater Bike Store	72	3	4
Incomparable Bicycle Store	21	1	4
General Cycle Storehouse	134	6	4
Distant Inn	96	4	4
Bikes for Kids and Adults	44	2	4
West Wind Distributors	22	1	4
Western Bike Supplies	21	1	4
Vehicle Shop	29	1	3
Bikes for Two	27	1	3
Bike World	93	3	3
Engineered Bike Systems	30	1	3
Clamps & Brackets Co.	29	1	3
Consolidated Sales	125	4	3
Full-Service Bike Store	26	1	3
Fitness Discount Store	26	1	3
Family Cycle Store	181	7	3
Field Trip Inc	31	1	3
Famous Bike Shop	61	2	3
Exemplary Cycles	31	1	3
Latest Sports Equipment	332	10	3
Lubricant and Grease Suppliers	83	3	3
Grown-up Bike Store	30	1	3
Guaranteed Sales and Service	91	3	3
Hardware Components	85	3	3
Grand Sport Boutique	86	3	3
Nonskid Tire Company	26	1	3
Next-Door Bike Store	128	4	3
Orange Bicycle Company	56	2	3
Outdoor Sports Supply	54	2	3
Nearby Cycle Shop	198	6	3
Rally Master Company Inc	110	4	3
Professional Cycle Store	191	6	3
Tandem Bicycle Store	30	1	3
Unique Bikes	31	1	3
Sunny Place Bikes	106	4	3
Steel Inc.	233	6	2
Small Bike Shop	249	7	2
Sleek Bikes	84	2	2

Spare Parts Co.	297	7	2
Safe Toys	38	1	2
Sales and Supply Company	304	8	2
Rugged Bikes	84	2	2
Riding Cycles	184	4	2
Rewarding Activities Company	436	9	2
Ultimate Bike Shop	44	1	2
Valley Toy Store	235	5	2
Travel Sports	165	4	2
Tread Industries	81	2	2
Trusted Catalog Store	104	3	2
The Bike Mechanics	45	1	2
Rural Cycle Emporium	267	6	2
This Area Sporting Goods	45	1	2
Petroleum Products Distributors	168	4	2
Quitting Business Distributors	40	1	2
Painters Bicycle Specialists	150	3	2
Pedaling Components	37	1	2
Perfect Toys	123	3	2
Plastic Products Manufacturers	35	1	2
Racing Supply Distributors	50	1	2
Racing Tours	42	1	2
Red Bicycle Company	220	5	2
Resale Services	374	9	2
Reliable Brake Systems	44	1	2
Metropolitan Manufacturing	68	2	2
Mechanical Sports Center	50	1	2
Metro Metals Co.	120	3	2
Outstanding Cycles	165	4	2
Outdoor Equipment Store	332	8	2
Oils and Fluids Warehouse	46	1	2
One Bike Company	47	1	2
Nationwide Supply	196	4	2
Odometers and Accessories Company	154	4	2
Great Bicycle Supply	38	1	2
Great Bikes	290	8	2
Honest Repair Service	79	2	2
Helpful Sales and Repair Service	146	3	2
General Bike Corporation	128	3	2
Global Bike Retailers	196	4	2
Go-cart and Bike Specialists	146	3	2
Leather Seat Factory	241	7	2
Locks Company	44	1	2

Immediate Repair Shop	198	5	2
Extreme Riding Supplies	80	2	2
Farthest Bike Store	145	3	2
Fast Bike Works	45	1	2
Field Trip Store	357	8	2
Finer Cycle Shop	85	2	2
Finer Parts Shop	131	3	2
Fitness Sport Boutique	131	3	2
First Supplies	38	1	2
Frugal Bike Shop	193	4	2
Full Sports Supply	41	1	2
Friendly Bike Shop	323	8	2
Front Runner Bikes	170	4	2
Futuristic Sport Distributors	317	7	2
Cycles Sales and Repair	46	1	2
Client Discount Store	47	1	2
Casual Bicycle Store	263	7	2
Closest Bicycle Store	117	3	2
Commerce Bicycle Specialists	314	7	2
Commercial Sporting Goods	187	4	2
Exceptional Cycle Services	41	1	2
Designated Distributors	103	3	2
Bikes and Motorbikes	251	7	2
Bicycle Exporters	38	1	2
Bicycle Warehouse Inc.	39	1	2
Brakes and Gears	298	8	2
Central Discount Store	95	2	2
Action Bicycle Specialists	179	4	2
Activity Center	73	2	2
Amalgamated Parts Shop	156	4	2
Best Cycle Store	177	4	2
Best o' Bikes	34	1	2
Wheelsets Storehouse	254	6	2
Vigorous Exercise Company	530	8	1
Westside Plaza	203	4	1
Wonderful Bikes Inc.	54	1	1
World of Bikes	289	4	1
Worthwhile Activity Store	112	2	1
Better Bike Shop	359	7	1
Authorized Bike Sales and Rental	82	1	1
Area Bike Accessories	273	4	1
Advanced Bike Components	394	7	1
Bold Bike Accessories	75	1	1

Bicycle Merchandise Warehouse	219	4	1
Bike Dealers Association	432	6	1
Bike Part Wholesalers	171	2	1
eCommerce Bikes	263	3	1
Eastside Department Store	401	8	1
Elemental Sporting Goods	75	1	1
Elite Bikes	189	3	1
Downhill Bicycle Specialists	166	3	1
Downtown Hotel	54	1	1
Coalition Bike Company	54	1	1
Citywide Service and Repair	356	5	1
Closeout Boutique	375	7	1
Classic Cycle Store	92	1	1
Cycling Goods	97	1	1
Consolidated Messenger	139	2	1
Custom Accessories Company	250	3	1
Corner Bicycle Supply	429	5	1
Functional Store South	224	4	1
General Department Stores	53	1	1
Gears and Parts Company	92	1	1
Front Sporting Goods	181	3	1
Finer Sporting Goods	60	1	1
First Bike Store	312	4	1
Fitness Supplies	164	2	1
Fitness Toy Store	336	6	1
First Department Stores	59	1	1
Fourth Bike Store	172	2	1
Fasteners & Bolts Outlet	147	2	1
Favorite Toy Distributor	112	2	1
Fashionable Bikes and Accessories	258	3	1
Fashionable Department Stores	401	7	1
Fabrikam Inc., West	283	5	1
Extended Bike Sales	78	1	1
Extraordinary Bike Works	279	5	1
Excellent Bikes	155	3	1
Exhibition Showroom	228	4	1
Exhilarating Cycles	373	7	1
Immense Manufacturing Company	71	1	1
Industrial Supplies	79	1	1
Initial Bike Company	264	4	1
Juvenile Sports Equipment	168	3	1
Journey Sporting Goods	52	1	1
Larger Cycle Shop	482	8	1

Machines & Cycles Store	55	1	1
Liquidation Sales	79	1	1
List Price Catalog Company	68	1	1
Golf and Cycle Store	207	3	1
Grand Industries	77	1	1
Glossy Bikes	204	3	1
Getaway Inn	289	5	1
Gift and Toy Store	107	2	1
Highway Bike Shop	111	2	1
Grease and Oil Products Company	102	2	1
Health Spa, Limited	352	6	1
Noiseless Gear Company	210	3	1
North Bike Company	56	1	1
Neighborhood Store	152	3	1
Paint Supply	376	4	1
Original Bicycle Supply Company	387	4	1
Metro Cycle Shop	151	3	1
Metro Manufacturing	82	1	1
Metal Clearing House	99	1	1
Metro Bike Mart	144	2	1
Manufacturers Inc	73	1	1
Many Bikes Store	301	5	1
Metropolitan Bicycle Supply	303	5	1
Metropolitan Equipment	405	8	1
Metropolitan Sports Supply	85	1	1
Modular Cycle Systems	235	4	1
Retail Mall	451	9	1
Retail Sporting Equipment	91	1	1
Professional Sales and Service	162	2	1
Registered Cycle Store	440	6	1
Real Sporting Goods	418	7	1
Reasonable Bicycle Sales	329	4	1
Rally Day Mall	358	7	1
Rapid Bikes	446	8	1
Primary Bike Distributors	170	3	1
Permanent Finish Products	391	4	1
Paints and Solvents Company	55	1	1
Racing Sales and Service	188	3	1
Quick Parts and Service	98	1	1
Progressive Sports	70	1	1
Prosperous Tours	369	7	1
Thrilling Bike Tours	53	1	1
The Gear Store	393	7	1

Tire Exchange	68	1	1
Top Sports Supply	441	7	1
The Bike Outlet	100	1	1
Ultimate Bicycle Company	143	2	1
Twelfth Bike Store	264	4	1
Valuable Bike Parts Company	315	6	1
Variety Cycling	57	1	1
Utilitarian Sporting Goods	101	2	1
Underglaze and Finish Company	157	2	1
Unified Sports Company	57	1	1
Rich Department Store	73	1	1
Roadway Bike Emporium	71	1	1
Rodeway Bike Store	165	3	1
Rural Mountain Bike Mart	52	1	1
Safe Cycles Shop	375	6	1
Serious Cycles	67	1	1
Seventh Bike Store	380	4	1
Small Bike Accessories Shop	83	1	1
South Bike Company	65	1	1
Spa and Exercise Outfitters	264	4	1
Sheet Metal Manufacturing	371	4	1
Stock Parts and Supplies	89	1	1
Sports Merchandise	72	1	1
Sports Products Store	76	1	1
Sports Sales and Rental	44	0	0
Standard Bikes	60	0	0
Stationary Bikes and Stands	75	0	0
Super Sports Store	53	0	0
Superb Sales and Repair	89	0	0
Superior Hardware Distributors	8	0	0
Superlative Bikes	39	0	0
Sure & Reliable Sporting Goods	228	1	0
Swift Cycles	170	0	0
Synthetic Materials Manufacturing	5	0	0
Shipping Specialists	2	0	0
Showcase for Cycles	2	0	0
Simple Bike Parts	13	0	0
Sixth Bike Store	38	0	0
Small Cycle Store	121	1	0
Social Activities Club	14	0	0
Solid Bike Parts	114	0	0
Some Discount Store	31	0	0
Sparkling Paint and Finishes	34	0	0



Specialty Sports Store	15	0	0
Spoke Manufacturers	5	0	0
Sharp Bikes	19	0	0
Separate Parts Corporation	268	1	0
Selected Distributors	22	0	0
Self-Contained Cycle Parts Company	9	0	0
Sellers of Cycles	26	0	0
Sensational Discount Store	1	0	0
Sample Bike Store	58	0	0
Satin Finish Company	263	1	0
Scooters and Bikes Store	106	0	0
Scratch-Resistant Finishes Company	36	0	0
Seaside Bike Works	17	0	0
Seats and Saddles Company	1	0	0
Second Bike Shop	3	0	0
Rural Sales and Service	7	0	0
Roving Sports	23	0	0
Running and Cycling Gear	139	1	0
Road-Way Mart	1	0	0
Roadway Supplies	2	0	0
Road Way Sales and Rental	2	0	0
Roadway Bicycle Supply	145	1	0
Riders Company	378	3	0
Riding Excursions	1	0	0
Uncompromising Quality Co	11	0	0
Unsurpassed Bikes	21	0	0
Up-To-Date Sports	115	1	0
Urban Sports Emporium	103	0	0
Uttermost Bike Shop	283	1	0
Valley Bicycle Distributors	43	0	0
Valley Bicycle Specialists	150	1	0
Vast Bike Sales and Rental	65	0	0
Twin Cycles	13	0	0
Two Bike Shops	12	0	0
Two Wheels Cycle Store	24	0	0
Two-Wheeled Transit Company	53	0	0
Tubeless Tire Company	1	0	0
Trendy Department Stores	7	0	0
Travel Systems	35	0	0
Transportation Options	7	0	0
The Bike Shop	14	0	0
The Commissary	2	0	0
The Cycle Store	1	0	0

Tandem Sales and Service	30	0	0
Technical Parts Manufacturing	119	1	0
Tenth Bike Store	282	1	0
The Accessories Store	8	0	0
Tachometers and Accessories	39	0	0
Stylish Department Stores	14	0	0
Successful Sales Company	95	0	0
Summer Sports Place	4	0	0
Sundry Sporting Goods	317	1	0
Totes & Baskets Company	436	2	0
Tough and Reliable Parts	13	0	0
Touring Services	19	0	0
Trailblazing Sports	279	2	0
The New Bike Store	7	0	0
The Showroom	5	0	0
Third Bike Store	42	0	0
Tiny Bike Boutique	132	1	0
Tire Company	17	0	0
Thorough Parts and Repair Services	358	3	0
Thrifty Parts and Sales	8	0	0
Qualified Sales and Repair Services	115	0	0
Plastic Parts Company	8	0	0
Professional Cyclists	18	0	0
Quantity Discounts	229	0	0
Racing Association	5	0	0
Racing Bike Outlet	15	0	0
Parcel Express Delivery Service	1	0	0
Parts Shop	1	0	0
Pedal Systems Company	4	0	0
Pedals Warehouse	8	0	0
Primary Cycle Shop	14	0	0
Principal Bike Company	64	0	0
Producer Goods Clearinghouse	26	0	0
Professional Containers and Packaging Co.	34	0	0
Popular Bike Lines	156	1	0
Practical Bike Supply Company	8	0	0
Preferred Bikes	328	3	0
Pretty Bikes and Toys	91	0	0
Price-Cutter Discount Bikes	83	0	0
Raw Materials Inc	64	0	0
Rambling Tours	2	0	0
Racing Toys	61	0	0
Recommended Bicycles	2	0	0

Recreation Supplies	1	0	0
Recreation Systems	16	0	0
Recreation Toy Store	30	0	0
Regional Cycle Shop	3	0	0
Regional Manufacturing	2	0	0
Retail Sporting Goods	1	0	0
Retail Toy Store	7	0	0
Retirement Activities Association	4	0	0
Retread Tire Company	8	0	0
Retreat Inn	21	0	0
Retail Sales and Service	279	1	0
Reliable Retail Center	15	0	0
Responsible Bike Dealers	65	0	0
Retail Cycle Shop	1	0	0
Retail Discount Store	1	0	0
Remote Bicycle Specialists	62	0	0
Rental Bikes	33	0	0
Rental Gallery	36	0	0
Requisite Part Supply	27	0	0
More Bikes!	6	0	0
Mountain Bike Center	255	2	0
Mountain Bike Store	102	1	0
Mountain Emporium	1	0	0
Mountain Toy Store	13	0	0
National Manufacturing	110	0	0
Nearby Sporting Goods	5	0	0
Nearest Bike Store	6	0	0
Neighborhood Bicycle Storehouse	7	0	0
Mobile Outlet	1	0	0
Moderately-Priced Bikes Store	68	0	0
Modern Bike Store	85	0	0
Metropolitan Sales and Rental	10	0	0
Mechanical Products Ltd.	104	1	0
Mercantile Outlet	105	0	0
Major Amusement Company	70	0	0
Major Bicycle Store	1	0	0
Major Cycling	14	0	0
Major Sport Suppliers	5	0	0
Major Sporting Goods	2	0	0
Metro Bike Works	9	0	0
Metal Processing Company	142	1	0
Metro Sports Equipment	117	1	0
Our Sporting Goods Store	19	0	0

Outdoor Aerobic Systems Company	3	0	0
Outdoor Sporting Goods	13	0	0
One-Piece Handle Bars	1	0	0
Online Bike Catalog	7	0	0
Online Bike Sellers	5	0	0
Online Bike Warehouse	2	0	0
Only Bikes and Accessories	15	0	0
Operational Manufacturing	3	0	0
Optimal Bikes	14	0	0
New and Used Bicycles	304	1	0
New Bikes Company	6	0	0
Next Door Cycles	134	1	0
Nearby Bike Mall	31	0	0
Nice Bikes	15	0	0
Non-Slip Pedal Company	79	0	0
Number 1 Supply	219	2	0
Number One Bike Co.	55	0	0
Helmets and Cycles	113	1	0
Historic Bicycle Sales	17	0	0
Hobby Store	13	0	0
Home Town Bike Store	7	0	0
Hometown Riding Supplies	1	0	0
Ideal Components	3	0	0
General Riding Supplies	2	0	0
General Supplies	334	1	0
Genial Bike Associates	250	1	0
Genuine Bike Shop	59	0	0
Good Bicycle Store	2	0	0
Good Bike Shop	320	0	0
Good Toys	8	0	0
Grand Bicycle Stores	11	0	0
Grand Discount Store	310	3	0
Little Bicycle Supply Shop	6	0	0
Local Hardware Factory	32	0	0
Local Sales and Rental	12	0	0
Leading Bike Distributors	37	0	0
Leading Sales & Repair	103	1	0
Lease-a-Bike Shop	280	2	0
Leather and Vinyl Manufacturing	74	0	0
Mail Market	6	0	0
Mail-Order Outlet	286	1	0
Lustrous Paints and Components	1	0	0
Lots of Bikes Storehouse	6	0	0

Low Price Cycles	14	0	0
Leisure Activities	23	0	0
Leisure Clearing House	13	0	0
Largest Bike Store	8	0	0
Jumbo Bikes	2	0	0
Kickstand Sellers	6	0	0
Kickstands and Accessories Company	107	1	0
Kids and Adults Cycle Shop	3	0	0
Large Bike Shop	2	0	0
Instant Cycle Store	18	0	0
Instruments and Parts Company	125	1	0
Inexpensive Parts Shop	36	0	0
Impervious Paint Company	17	0	0
Imported and Domestic Cycles	1	0	0
Exotic Bikes	62	0	0
Express Bike Services	39	0	0
Excellent Riding Supplies	366	1	0
Exercise Center	6	0	0
Extras Sporting Goods	1	0	0
Extended Tours	9	0	0
Fad Outlet	22	0	0
Extreme Toy Store	23	0	0
Fabrikam Inc., East	88	0	0
Fast Services	12	0	0
Farthermost Bike Shop	422	2	0
Family's Favorite Bike Shop	17	0	0
Famous Bike Sales and Service	65	0	0
Fifth Bike Store	22	0	0
Finer Riding Supplies	250	0	0
Fitness Hotel	20	0	0
Fitness Toys	8	0	0
Fleet Bikes	6	0	0
First Center	4	0	0
First Cycle Store	115	0	0
Finish and Sealant Products	12	0	0
Finished Parts Shop	39	0	0
First-Rate Outlet	10	0	0
Fitness Cycling	5	0	0
Friendly Neighborhood Bikes	15	0	0
Fun Times Club	218	1	0
Fun Toys and Bikes	101	1	0
Gear-Shift Bikes Limited	1	0	0
General Associates	106	0	0

Future Bikes	12	0	0
Futuristic Bikes	20	0	0
Games and Sport Supply Company	9	0	0
Gasless Cycle Shop	130	1	0
Countryside Company	14	0	0
Courteous Bicycle Specialists	7	0	0
Cross-Country Riding Supplies	25	0	0
Curbside Universe	24	0	0
Convenient Bike Shop	31	0	0
Convenient Sales and Service	129	1	0
Daring Rides	59	0	0
Demand Distributors	11	0	0
Cycles Wholesaler & Mfg.	104	1	0
Cycle Merchants	17	0	0
Cycle Parts and Accessories	141	1	0
Cycles and Scooters	13	0	0
Catalog Store	255	1	0
Center Cycle Shop	2	0	0
Commendable Bikes	13	0	0
Community Department Stores	78	0	0
Commuter Bicycle Store	20	0	0
Eighth Bike Store	102	1	0
Endurance Bikes	5	0	0
Eleventh Bike Store	1	0	0
Exchange Parts Inc.	116	1	0
Exclusive Bicycle Mart	7	0	0
Executive Discount Store	3	0	0
Executive Gift Store	118	1	0
Enterprise Center	16	0	0
Essential Bike Works	2	0	0
Every Bike Shop	184	0	0
Eastside Parts Shop	4	0	0
Eastside Sporting Goods	194	1	0
Economy Bikes Company	5	0	0
Economy Center	3	0	0
Educational Services	167	1	0
Discount Bicycle Specialists	1	0	0
Discount Tours	67	0	0
Distance Bikes	7	0	0
Distinctive Cycles Sales & Service	9	0	0
Distinctive Store	24	0	0
District Mall	69	0	0
Bike Products and Accessories	22	0	0

Bike Rims Company	80	0	0
Black Bicycle Company	2	0	0
Blue Bicycle Company	5	0	0
Blue-Ribbon Bike Company	115	1	0
Bike Experts	177	1	0
Bike Goods	54	0	0
Big-Time Bike Store	75	0	0
Bike Boutique	179	0	0
Bicycle Outfitters	116	1	0
Bicycle Lines Distributors	250	2	0
Cash & Carry Bikes	5	0	0
Brightwork Company	114	0	0
Budget Bike Company	3	0	0
Budget Toy Store	131	1	0
Bulk Discount Store	331	1	0
Camping and Sports Store	122	1	0
Certified Bicycle Supply	99	0	0
Certified Sports Supply	7	0	0
Chain and Chain Tool Distributions	1	0	0
Channel Outlet	20	0	0
Chic Department Stores	260	2	0
City Manufacturing	10	0	0
Aerobic Exercise Company	10	0	0
Affordable Sports Equipment	269	0	0
All Seasons Sports Supply	12	0	0
Alpine Ski House	14	0	0
Alternative Vehicles	11	0	0
Active Cycling	2	0	0
Active Life Toys	173	0	0
Ace Bicycle Supply	6	0	0
A Bike Store	73	0	0
A Great Bicycle Company	14	0	0
A Typical Bike Shop	75	0	0
Acceptable Sales & Service	3	0	0
Area Sheet Metal Supply	7	0	0
Associated Bikes	16	0	0
Atypical Bike Company	2	0	0
Authentic Sales and Service	13	0	0
Another Bicycle Company	176	1	0
Active Transport Inc.	71	0	0
Basic Bike Company	27	0	0
Basic Sports Equipment	64	0	0
Beneficial Exercises and Activities	5	0	0

Bicycle Accessories and Kits	11	0	0
Year-Round Sports	43	0	0
Yellow Bicycle Company	28	0	0
Work and Play Association	102	0	0
Wheel Gallery	22	0	0
Wheels Inc.	3	0	0
World Bike Discount Store	10	0	0
Vigorous Sports Store	12	0	0
Village Tours	36	0	0
Vintage Sport Boutique	146	1	0
Vinyl and Plastic Goods Corporation	10	0	0
Weekend Bike Tours	1	0	0
Weekend Tours	72	0	0
West Side Mart	3	0	0
Wholesale Bikes	61	0	0
Wholesale Parts	59	0	0
Widget Bicycle Specialists	1	0	0
Wingtip Toys	3	0	0
Wire Baskets and Parts	90	0	0
Versatile Sporting Goods Company	9	0	0
Very Best Sports Supply	30	0	0
Westside Cycle Store	10	0	0

#### 1.4.1 Vendedores proactivos

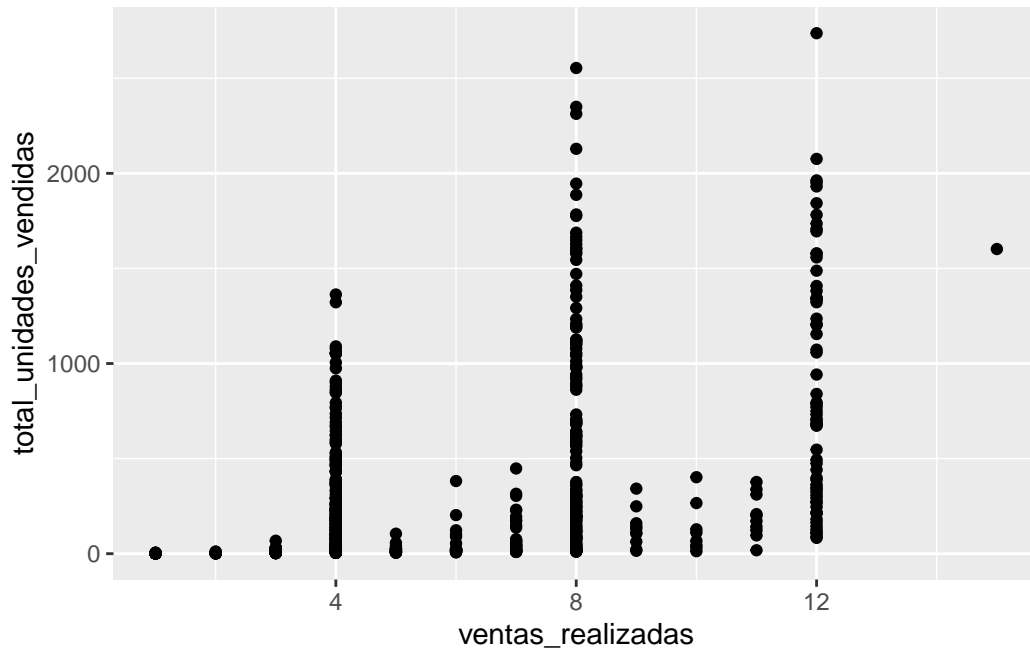
##### 1.4.1.0.1 Visualización 11 RECORTAR

**Top 10 Vendedores proactivos**  
Ventas realizadas vs Total de ítems vendidos

ResellerName	total_unidades_vendidas	ventas_realizadas
Friendly Bike Shop	1602	15
Advanced Bike Components	1695	12
Area Bike Accessories	942	12
Basic Sports Equipment	215	12
Better Bike Shop	1207	12
Bike Dealers Association	1951	12
Bike Goods	83	12
Brakes and Gears	1558	12
Brightwork Company	388	12
Catalog Store	681	12

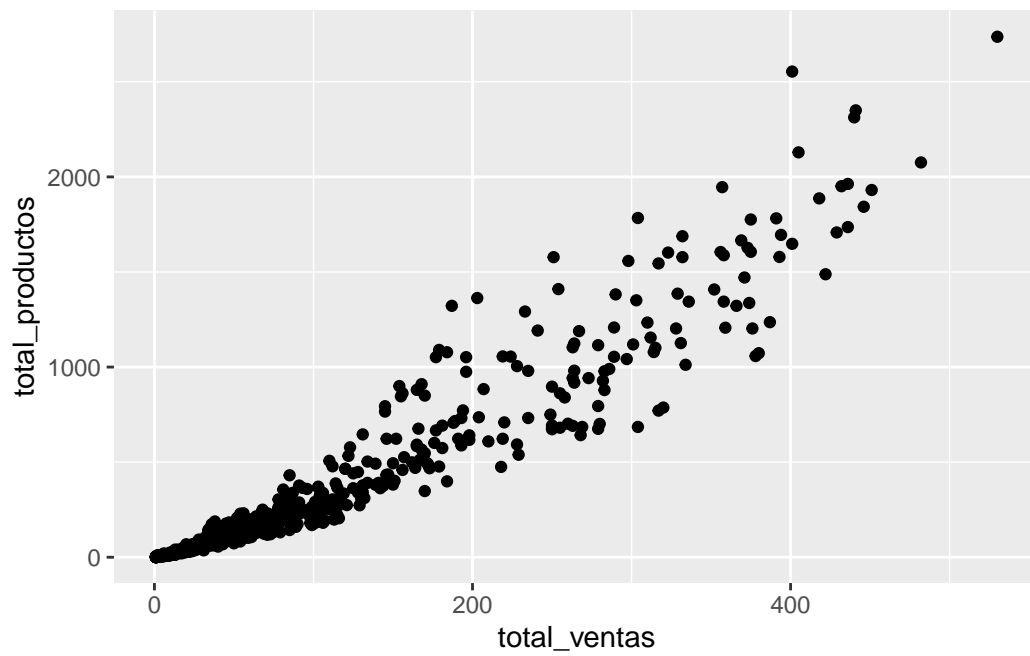


#### 1.4.1.0.2 Visualización 12



```
query10c <- "WITH producto_venta_reseller AS (SELECT rsales.ProductKey, rsales.OrderQuantity
FROM dbo.FactResellerSales rsales
LEFT JOIN dbo.DimReseller dr ON rsales.ResellerKey = dr.ResellerKey
WHERE YEAR(rsales.OrderDate) IN (2010, 2011, 2012, 2013)),
sod_reseller AS(
    SELECT DISTINCT SalesOrderNumber, ResellerName
    FROM producto_venta_reseller
),
total_vtas_reseller AS(
    SELECT ResellerName, COUNT(*) as total_ventas
    FROM producto_venta_reseller
    GROUP BY ResellerName
),
total_items_reseller AS (
    SELECT ResellerName, SUM(OrderQuantity) as total_productos
    FROM producto_venta_reseller
    GROUP BY ResellerName
)
SELECT tvr.ResellerName, total_ventas, tir.total_productos
FROM total_vtas_reseller tvr
LEFT JOIN total_items_reseller tir ON tvr.ResellerName = tir.ResellerName"
```

```
q10c <- dbGetQuery(con, query10c)
q10c %>%
  ggplot(aes(x=total_ventas, y = total_productos)) +
  geom_point()
```



## 1.5 Conclusiones